ASSIGNMENT 3

Textbook Assignment: "Film Image Assembly," chapter 9, pages 9:1 through 9:24; "Platemaking," chapter 11, pages 11:1 through 11:24; "Ink," chapter 13, pages 13:1 through 13:21; "Paper," chapter 14, pages 14:1 through 14:47; "Presswork," chapter 15, pages 15:1 through 15:34; "Binding and Finishing," chapter 16, pages 16:1 through 16:12.

Learning Objective: Identify the procedures used to prepare and correct film that is to be used in making lithographic plates.

3-1. What is the procedure of assembling film images commonly called?

1. Stripping
2. Film construction
3. Film arrangement
4. Image imposition

3-2. What are you creating when attaching negatives in their proper order to an opaque paper or plastic base?

1. Frame
2. Mask
3. Flat
4. Layout

3-3. What method involves exposing multiple images from a single film onto a plate?

1. Pin and tab
2. Double burn
3. Work and turn
4. Step and repeat

3-4. Which of the following groups contain items used for film image assembly?

1. T square, single-edge razor blade, masking tape
2. Opaque, register pins, lithographic needles
3. Straightedge, scissors, plate gauge
4. Ruler, rotary cutter, scriber

3-5. Goldenrod paper acts as a support for the negative and serves what other purpose?

1. A guide for opaquing
2. A straightedge for engraving
3. A mask for the non-image areas
4. A guide for ruling lines

3-6. Which of the following is NOT a standard reproduction layout?

1. Work-and-turn
2. Work-and-flop
3. Two-side combination
4. Sheetwise

3-7. Which of the following situations would prevent you from making a "gang" layout?

1. A number of unrelated jobs
2. Jobs of different sizes
3. Jobs that cannot be cut out of a sheet properly
4. One of the jobs must be run two-up

3-8. What is the main difference between work-and-turn and work-and-tumble impositions?

1. The size of the type used
2. The width of the lead edge margin
3. The speed of the press sheet reversal
4. The manner in which the negatives are stripped

3-9. What flat material is the least durable, and not as suitable for jobs that will be handled repeatedly?

1. Goldenrod
2. Orange vinyl
3. Peelable masking film
4. Clear polyester

3-10. The guidelines on the goldenrod are used in the stripping procedure for what purpose?

1. To position the negatives
2. To line up the offset printing plates
3. To expose the plate through the negatives
4. To cut the film to fill the opening in the paper

3-11. What is the least amount of density reading the black area of a negative should have?

1. 2.0
2. 2.5
3. 3.0
4. 3.5

3-12. The process in which a lightproof coating is applied to a negative to make corrections is known by what term?

1. Fixing
2. Intensifying
3. Opaquing
4. Highlighting

3-13. How are unwanted specks on a positive flat eliminated?

1. Cover them with red litho tape
2. Spot them out with opaque
3. Cover them with goldenrod
4. Scrape them off the emulsion side of the film

3-14. A film positive of lettering is necessary for which of the following effects in printing?

1. Surprinting
2. Reverse lettering
3. Inserting
4. Step-and-repeat work

3-15. When you are preparing flats, the tab and pin system has what purpose?

1. To splice negatives together
2. To indicate trim margins
3. To show alignment of imposition charts
4. To obtain close registration

3-16. The printing of nonprocess color inks to selected areas falls into what category of multicolor printing?

1. Full color
2. Spot color
3. Fake color
4. Screen color

3-17. What number of different levels of register accuracy is there when combining two or more colors?

1. One
2. Two
3. Three
4. Four

Learning Objective: Identify the types and characteristics of lithographic plates and recall the processes used to expose and develop them.

3-18. The three basic types of photolithographic plates are identified by which of the following terms?

1. Metal, Plastic, Paper
2. Light-sensitive, contact, electrostatic
3. Surface, deep-etched, relief
4. Emulsion, photopolymer, electrostatic

3-19. What type of lithographic plate has a coating that is soluble in a solvent, such as water, before exposure but becomes polymerized after exposure to light in the platemaking process?

1. A positive-working plate
2. A negative-working plate
3. A bimetal plate
4. A direct-image plate

3-20. What color lighting should be used when processing coated plates?

1. White
2. Blue
3. Yellow
4. Violet

3-21. Using a twenty-one-step plate sensitivity guide when exposing and developing a subtractive plate, what is the highest number that should be solid to indicate proper exposure?

1. 3
2. 6
3. 9
4. 12

3-22. What term best describes the image areas of a plate being wet by water and not ink?

1. Scumming
2. Emulsification
3. Tinting
4. Blinding

3-23. What problem should occur when the nonimage areas of a plate are wet by ink instead of water?

1. Scumming
2. Picking
3. Ghosting
4. Chalking

3-24. Offset plates should be gummed up on a press anytime the press will be down in excess of what minimum number of minutes?

1. 15
2. 30
3. 45
4. 60

Learning Objective: Identify the types of ink that are used, the care of ink, and the problems associated with ink on the press.

3-25. The color of ink in a can is best known by what term?

1. Masstone
2. Undertone
3. Tinctorial strength
4. Drawdown

3-26. The color of light reflected by paper and transmitted through a thin film of ink is best known by what term?

1. Masstone
2. Undertone
3. Tinctorial strength
4. Drawdown

3-27. In what order should you lay down offset printing inks to achieve the best color?

1. Cyan, magenta, black, and yellow
2. Magenta, cyan, yellow, and black
3. Black, cyan, magenta, and yellow
4. Yellow, magenta, cyan, and black

3-28. What substances used in the manufacturing of ink provides the color?

1. Resin
2. Drier
3. Vehicle
4. Pigment

3-29. What ingredient of offset ink carries the coloring matter from the ink fountain to the paper, and also binds the ink to the substrate when dry?

1. Vehicle
2. Resin
3. Cobalt
4. Reducer

3-30. What drying method takes place when printing with sheetfed offset inks?

1. Absorption
2. Oxidation/Polymerization
3. Evaporation
4. Solidification

3-31. Ink transferring from one sheet to the back of another in the stack is best known by what term?

1. Chalking
2. Livering
3. Piling
4. Setoff

3-32. Pigment from the ink rubbing off the sheet is best known by what term?

1. Chalking
2. Livering
3. Piling
4. Stripping

3-33. Ink failing to transfer from the blanket to the paper is best known by what term?

1. Chalking
2. Setoff
3. Piling
4. Stripping

3-34. A small, doughnut shaped spot in the image area of a halftone caused by specks of dirt is best known by what term?

1. Smudge
2. Mottle
3. Hickey
4. Ghost

3-35. The ink rollers refusal to take ink is referred to by what term?

1. Stripping
2. Offsetting
3. Smudging
4. Chalking

Learning Objective: Identify papermaking methods and the types, characteristics, and care of paper.

3-36. What additive should be used during or after refining to increase the opaque quality and even the surface of the paper?

1. Sizing
2. Loaders and fillers
3. Pigments and dyes
4. Resins

3-37. What should be added to paper pulp to produce a bright paper surface?

1. Talc
2. Starches
3. Bleaches
4. Resins

3-38. What substance is added during the papermaking process to control ink penetration, pick resistance, dimensional stability, surface smoothness, finish, and appearance?

1. Starch
2. Talc
3. Rosin
4. Clay

3-39. The side of paper that provides the best printing surface is identified by which of the following terms?

1. Felt side
2. Wire side
3. Grain side
4. Velvet side

3-40. Which of the following processes is the final step in controlling the characteristics of paper before it leaves the paper machine?

1. Coating
2. Calendering
3. Rewinding
4. Sheeting

A. Index bristols
B. Parchment
C. Ledger
D. Cotton-content

Figure 3A.—Paper types

IN ANSWERING QUESTIONS 3-41 THROUGH 3-45, SELECT FROM FIGURE 3A THE TYPE OF PAPER DESCRIBED AS THE QUESTION.

3-41. Durable paper used for accounting and records.

1. A
2. B
3. C
4. D

3-42. Tough and stiff paper used for file and mailing cards.

1. A
2. B
3. C
4. D

3-43. Paper with principal use as business stationary.

1. A
2. B
3. C
4. D

3-44. Paper manufactured from cellulose fibers with resistance to dirt and grease.

1. A
2. B
3. C
4. D

3-45. When ordering paper, what Roman numeral symbol should be used to represent 1,000 sheets?

1. C
2. D
3. L
4. M

3-46. What characteristic of paper do the terms antique, wove, laid, and vellum represent?

1. Grade
2. Finish
3. Weight
4. Coating

3-47. You are required to reproduce 1,000 copies of a one color, one sided job that does not need any binding or finishing. What total number of 8 1/2 x 11 sheets of ledger paper should be cut down allowing for spoilage?

1. 1080
2. 1090
3. 1100
4. 1110

Learning Objective: Identify the components of an offset press and recognize their functions.

3-48. A press that is equipped to print on both sides of the paper in a single run is best known by what term?

1. A web press
2. A perfecting press
3. A sheet fed press
4. A multicolor press

3-49. The printing unit of the offset press does NOT include which of the following major components?

1. Ink fountain and rollers
2. Blanket, plate, and impression cylinder
3. Skeleton cylinder
4. Water fountain and rollers

3-50. During operation of the offset press, the plate on its cylinder contacts (A) the blanket cylinder, (B) the inking rollers, and (C) the dampening rollers. These contacts should be made in what sequence?

1. C, B, A
2. A, B, C
3. B, C, A
4. C, A, B

3-51. On an offset press, which cylinder transfers the image onto the paper?

1. The plate cylinder
2. The impression cylinder
3. The blanket cylinder
4. The skeleton cylinder

3-52. The ink is passed to the plate from which of the following rollers?

1. Ductor
2. Idler
3. Form
4. Oscillator

3-53. What are the two main components of an ink fountain on an offset press?

1. Force feeder and the reservoir
2. Ductor roller and the fountain roller
3. Metal fountain roller and the vibrator roller
4. Steel blade and the metal fountain roller

3-54. The ink is passed directly from the fountain roller to which of the following rollers?

1. Ductor
2. Idler
3. Form
4. Oscillator

3-55. Which rollers move sideways as they rotate?

1. Ductor
2. Idler
3. Form
4. Oscillator

3-56. To make ink run heavier on one area of a plate than another, you should take which of the following actions?

1. Adjust the fountain keys
2. Regulate the ink feed ratchet
3. Turn the fountain roller by hand
4. Manipulate the ink feed ratchet lever

3-57. What dampening system roller makes direct contact with the plate?

1. Form
2. Ductor
3. Fountain
4. Distributor

3-58. On the pH scale, what number indicates a neutral value?

1. 1
2. 5
3. 7
4. 8

3-59. Which of the following pH values has the greatest alkalinity?

1. 6
2. 7
3. 8
4. 9

3-60. What is the most accurate method of determining the pH value of a solution?

1. By using a test strip
2. By using litmus paper
3. By using electrometrics
4. By using colorimetrics

Learning Objective: Recall the equipment used in binding and finishing printed work.

3-61. The production work accomplished while turning printed sheets into books is best classified by what term?

1. Finishing
2. Binding
3. Folding
4. Banding

3-62. The production of advertising displays, labels, and packaging is referred to by what term?

1. Finishing
2. Binding
3. Copy prep
4. Offset

3-63. A blank sheet of the exact paper stock used to reproduce a job that has been folded down, page numbered, and marked to show the lead edge is best known by what term?

1. Imposition
2. Folio
3. Folding dummy
4. Mechanical

3-64. Why should you plan a job so the paper grain runs parallel to the binding edge?

1. To maximize the endurance of the cover page
2. To make it easier to turn the pages
3. To permit better stitching
4. To make the bind of the finished product stiffer

3-65. What component helps prevent a paper cutter blade from becoming dull or breaking?

1. The knife guard
2. The knife gib
3. The knife draw limiter
4. The cutting stick

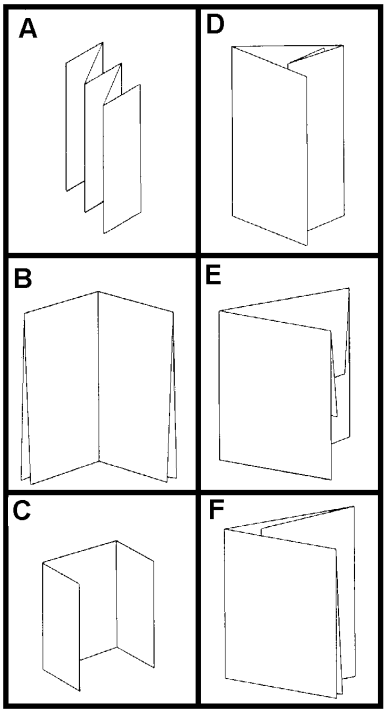

Figure 3B.—Common folds

IN ANSWERING QUESTIONS 3-66 THROUGH 3-68, SELECT FROM FIGURE 3B THE TYPE OF FOLD REPRESENTED IN THE QUESTION.

3-66. Eight page signature fold.

1. B
2. D
3. E
4. F

3-67. Gate fold.

1. A
2. C
3. D
4. E

3-68. French fold.

1. C
2. D
3. E
4. F

3-69. Which of the following is not a type of folder?

1. Knife
2. Buckle
3. Parallel
4. Combination

3-70. What component of a paper folder is adjusted to set the size of the fold?

1. Fold roller
2. Sheet plate
3. Plate stop
4. Deflector

3-71. What job order process should you use to produce a finished product using a mechanical binding method?

1. Collating, punching/drilling, assembling, trimming
2. Gathering, trimming, punching/drilling, assembling
3. Gathering, assembling, punching/drilling, trimming
4. Assembling, punching/drilling, trimming, collating

3-72. What type of binding uses glue to bind the pages of a publication at its backbone?

1. Velo-binding
2. Mechanical binding
3. Perfect binding
4. Smyth binding

3-73. What form of binding is the best method to use for joining publications that are up to 1/4 inch thick?

1. Adhesive binding
2. Side stitching
3. Saddle stitching
4. Casebinding